



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/523,772	06/14/2012	Minhua Zhou	TI-70636A	9927

23494 7590 01/26/2017
TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

ZHOU, ZHIHAN

ART UNIT	PAPER NUMBER
----------	--------------

2482

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/26/2017

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MINHUA ZHOU

Appeal 2016-001519
Application 13/523,772
Technology Center 2400

Before DEBRA K. STEPHENS, JON M. JURGOVAN, and
JOSEPH P. LENTIVECH, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ seeks review under 35 U.S.C. § 134(a) from a Final Rejection of claims 25–55, the only pending claims in this appeal. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.²

¹ The Appeal Brief identifies Texas Instruments Incorporated as the real party in interest. (App. Br. 3.)

² Our Decision refers to the Specification (“Spec.”) filed June 14, 2012, the Final Office Action (“Final Act.”) mailed Mar. 4, 2015, the Appeal Brief (“App. Br.”) filed June 9, 2015, the Examiner’s Answer (“Ans.”) mailed Sept. 25, 2015, and the Reply Brief (“Reply Br.”) filed Nov. 19, 2015.

CLAIMED INVENTION

The claims are directed to video coding using a maximum allowed number of inter-prediction candidates for a plurality of prediction units encoded into a slice header. (Spec. Title, Abstract, and ¶ 141.) Claim 25, reproduced below, is illustrative of the claimed subject matter:

25. A method for encoding a picture, comprising:
determining a maximum allowed number of candidates for a plurality of merge candidate lists for a plurality of prediction units (PU) for a slice region in the picture;
binarizing a merge candidate index for one of the plurality of prediction units in the slice region using a truncated unary coding in which a maximum codeword size is one less than the maximum allowed number of candidates in the at least one slice region;
encoding the maximum allowed number of candidates in a slice header for the slice region into a bit stream; and
encoding the binarized merge candidate index into the bit stream.

REJECTIONS

Claims 25–36 and 40–47 stand rejected under 35 U.S.C. § 103(a) based on Chien (US 2012/0195368 A1, Aug. 2, 2012) and Sugio I (US 2012/0300846 A1, Nov. 29, 2012). (Final Act. 2–9.)

Claims 37–39 and 48–55 stand rejected under 35 U.S.C. § 103(a) based on Chien, Sugio I, and Sugio II (US 2013/0010869 A1, Jan. 10, 2013). (Final Act. 9–14.)

ANALYSIS

Claims 25–36 and 40–47

Appellant states that claim 25 recites determining a maximum allowed number of candidates for a plurality of prediction units and encoding this single maximum in a slice header. (App. Br. 20; Reply Br. 2–3.) Appellant contends that Sugio I, the reference upon which the Examiner relies for this feature, teaches determination of maximum numbers of prediction candidates for each block on a block-by-block basis for inclusion in a slice header. (*Id.* (citing Sugio I ¶ 224).) Appellant thus argues the claimed invention encodes a single maximum for multiple candidates for prediction units of a slice whereas Sugio I encodes multiple maximum numbers of candidates corresponding to each block of a slice.

Appellant’s argument hinges on interpretation of the indefinite article “a” in the claim as meaning a single maximum allowed number of candidates that is used for multiple prediction units. However, this interpretation is contrary to the general rule established by our reviewing court that “an indefinite article ‘a’ or ‘an’ in patent parlance carries the meaning of ‘one or more’ in open-ended claims containing the transitional phrase ‘comprising’.” *Baldwin Graphic Systems, Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342–43 (Fed. Cir. 2008) (quoting *KJC Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000)). “The exceptions to this rule are extremely limited: a patentee must ‘evinced[] a clear intent’ to limit ‘a’ or ‘an’ to ‘one.’” *Id.* The court in *Baldwin* proceeded with analysis of whether the claims, specification, and prosecution history at issue in that case evinced such intent, concluding they did not. *Baldwin* concerned an issued patent whereas the claims at issue here involve a pending application.

“[C]laims yet unpatented are to be given the broadest reasonable interpretation consistent with the specification during the examination of a patent application since the applicant may then amend his claims, the thought being to reduce the possibility that, after the patent is granted, the claims may be interpreted as giving broader coverage than is justified.”

88 J. Pat. & Trademark Off. Soc’y 279, 288 (2006) (emphasis omitted) (quoting *In re Prater*, 415 F.2d 1393, 1404–05 (CCPA 1969); citing *In re Amer. Acad. of Sci. Tech Center*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989) (“Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.”)). “Construing claims broadly during prosecution is not unfair to the applicant . . . , because the applicant has the opportunity to amend the claims to obtain more precise claim coverage.” *Id.* (quoting *Amer. Acad. of Sci. Tech Center*, 367 F.3d at 1364). Application of broadest reasonable interpretation also provides the opportunity to remove ambiguities from the claims. *Id.* (citing *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004)).

Appellant cites to no definition or other language in the Specification or claims requiring a restrictive interpretation of the indefinite article “a” in claim 25 to mean a single maximum allowed number candidates for the prediction units of a slice. We likewise find no such language in the cited paragraphs of the Specification. (See, e.g., App. Br. 5 (citing ¶¶ 52, 65, 67, 81, Fig. 6).) Accordingly, on this record, we find Appellant’s Specification does not evince any intent to construe the indefinite article “a” in the claimed context to mean a single maximum allowed number of candidates for the prediction units of a slice. Appellant’s argument is thus insufficient to overcome the general rule that the indefinite article “a” is interpreted

open-endedly in a claim using the ‘comprising’ transition. Accordingly, the claimed limitation encompasses multiple maxima for respective blocks of a slice, as taught by Sugio I, and we sustain the Examiner’s rejection.

With respect to claims 25, 29, 35, 40, and 45, Appellant lists various features of the claims and asserts they are not obvious in view of Chien, Sugio I, and Sugio II. (App. Br. 21–24.) This form of argument is ineffective to show Examiner error. *See In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011) (Appellants’ contentions “require more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.”). Appellant also asserts unexpected error resistance and coding efficiency is obtained with the claimed invention. (App. Br. 21 (citing Minhua Zhou, *Joint Collaborative Team on Video Coding (JCT-VC) of ITU-T SG16 WP3 and ISO/IEC JTC1/SC29/WG11*, 7th Meeting: Geneva, CH, 19–30 (2011)). However, this argument is predicated upon Appellant’s interpretation of the indefinite article “a” in the claim as meaning a single maximum allowed number of candidates that is used for multiple prediction units which, as discussed *supra*, we find unpersuasive.

Appellant presents the same arguments for the dependent claims, which we find unpersuasive for the stated reasons. (App. Br. 21–23.)

Claims 37–39 and 48–55

Appellant’s arguments for claims 37–39 and 48–55 are similar to those previously stated. (App. Br. 24–25; Reply Br. 2–4.) For the stated reasons, we are not persuaded the Examiner errs in the obviousness rejection of these claims.

DECISION

We affirm the Examiner's rejections of claims 25–55 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED